What is claimed is:

1. A semiconductor integrated circuit device having a capacitor element, comprising:

an accumulation electrode having a first conducting material formed into a crown structure, of which one end is sealed, and a second conducting material covering said first conducting material and difficult to be oxidized as compared with said first conducting material;

a dielectric insulating film formed so as to cover said accumulation electrode; and

a plate electrode formed at a position opposite to said accumulation electrode with said dielectric insulating film interposed between said plate electrode and said accumulation electrode.

2. The semiconductor integrated circuit device according to claim 1, wherein said first conducting material is titanium nitride.

3. The semiconductor integrated circuit device according to claim 1, wherein said second conducting material is ruthenium.

4. A method of manufacturing a semiconductor integrated circuit device having a capacitor element, comprising the steps of:

forming a cylindrical crown structure composed of a first conducting material on a first insulating film formed on a substrate of the semiconductor so as to seal an end of said crown structure being in contact with said first insulating film;

depositing a second conducting material, which is difficult to be

oxidized as compared with said first conducting material, on an entire surface including a bottom of an opening of said crown structure and a side wall of said crown structure;

removing said second conducting material deposited on a surface of said first insulating film;

forming an accumulation electrode of said capacitor element, which is obtained by covering said first conducting material with said second conducting material, by growing a film of said second conducting material deposited on the bottom of the opening of said crown structure and the side wall of said crown structure while using said second conducting material as a seed layer;

forming a second insulating film, acting as a dielectric insulating film of said capacitor element, on an exposed surface of said accumulation electrode; and

introducing oxygen into an oxygen defect of said second insulating film.

5. The method of manufacturing a semiconductor integrated circuit device according to claim 4, wherein a film thickness of said second conducting material used as said seed layer and deposited on a head top portion of said crown structure is set, in the step of depositing said second conducting material, to be larger than that of said second conducting material used as said seed layer and deposited on the surface of said first insulating film.

6. The method of manufacturing a semiconductor integrated circuit

device according to claim 4, wherein said second conducting material used as said seed layer is deposited, in the step of depositing said second conducting material, by using a sputtering method.

7. The method of manufacturing a semiconductor integrated circuit device according to claim 4, wherein said second conducting material deposited on the surface of said first insulating film is removed by an anisotropic dry etching in the step of removing said second conducting material.

8. The method of manufacturing a semiconductor integrated circuit device according to claim 7, wherein a ratio of a depth of the opening of said crown structure to a diameter of the opening is set to a value at which said second conducting material deposited on the surface of said first insulating film is removed by said anisotropic dry etching and at which said second conducting material deposited on the bottom of the opening remains regardless of said anisotropic dry etching.

9. The method of manufacturing a semiconductor integrated circuit device according to claim 4, wherein a CVD method is used for the growth of the film of said second conducting material in the step of forming the accumulation electrode.

10. The method of manufacturing a semiconductor integrated circuit device according to claim 4, wherein said first conducting material has mechanical strength greater than that of said second conducting material.

11. The method of manufacturing a semiconductor integrated circuit device according to claim 4, wherein said second conducting material is ruthenium.

12. The method of manufacturing a semiconductor integrated circuit device according to claim 4, wherein said first conducting material includes metals.

13. The method of manufacturing a semiconductor integrated circuit device according to claim 12, wherein said first conducting material is titanium nitride.

14. The method of manufacturing a semiconductor integrated circuit device according to claim 4, wherein said second insulating film is tantalum oxide.